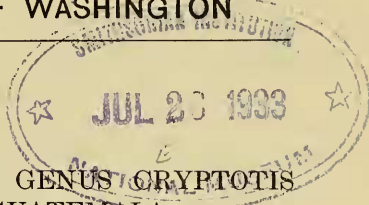


PROCEEDINGS
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FIVE NEW SHREWS OF THE GENUS *CRYPTOTIS*
FROM MEXICO AND GUATEMALA.

BY HARTLEY H. T. JACKSON.

Inspection of the specimens of *Cryptotis* in the Biological Survey collection has disclosed several unrecognized forms, among which five from Mexico and Guatemala are here described as new. Two of these forms, it seems clear, are subspecies of *Cryptotis pergracilis*. The other three display no definite intergrading of characters with each other or with any described form, although all have indications of affinity with *Cryptotis mexicana*.

Cryptotis pergracilis pueblensis, subsp. nov.

Type-specimen.—No. 92720, U. S. National Museum, Biological Survey collection; ♂ adult (teeth slightly worn), skin and skull; collected January 6, 1898, by E. A. Goldman. Original number 12014 (Nelson and Goldman catalog).

Type-locality.—Huachinango, altitude 5000 feet, State of Puebla, Mexico.

Diagnostic characters.—About the size of *Cryptotis pergracilis pergracilis*, color distinctly darker; skull heavier, broader interorbitally, with noticeably wider rostrum and broader molariform teeth. Darker and more reddish than the new form from the State of Nayarit, with smaller and flatter skull.

Color.—Upperparts most nearly mummy brown¹; underparts grayish, washed heavily with buffy brown.

Measurements.—Type-specimen: Total length, 85; tail vertebrae, 22; hind foot, 13. *Skull* of type-specimen: Condylbasal length, 16.2; palatal length, 7.2; cranial breadth, 8.3; interorbital breadth, 4.1; maxillary breadth, 5.3; maxillary tooth row, 6.0.

Cryptotis pergracilis nayaritensis, subsp. nov.

Type-specimen.—No. 88015, U. S. National Museum, Biological Survey collection; ♂ adult (teeth slightly worn), skin and skull; collected April 13, 1897, by E. W. Nelson and E. A. Goldman. Original number 10902.

¹Colors are those as given by R. Ridgway, Color Standards and Color Nomenclature, 1912.

Type-locality.—Tepic, altitude 3000 feet, State of Nayarit, Mexico.

Diagnostic characters.—Near *Cryptotis pergracilis pergracilis* in size, the general color darker and more reddish brown, less grayish, the underparts suffused with cinnamon-buff. Paler and more reddish than *Cryptotis pergracilis pueblensis*, the underparts more tinged with cinnamon-buff or tawny olive. Skull larger and heavier, and with heavier rostrum than that of *Cryptotis p. pueblensis*; decidedly heavier than that of *Cryptotis p. pergracilis* or *Cryptotis p. macer*; dentition heavy, about as in *Cryptotis p. pueblensis*, much heavier than in *Cryptotis p. pergracilis*, the third unicuspid relatively small as in *Cryptotis p. pueblensis*.

Color.—Upperparts Prout's brown or possibly a shade darker; underparts grayish suffused with cinnamon-buff or tawny-olive.

Measurements.—Type-specimen: Total length, 80; tail vertebrae, 22; hind foot, 12. *Skull* of type-specimen: Condylbasal length, 17.0; palatal length, 7.1; cranial breadth, 8.6; interorbital breadth, 4.1; maxillary breadth, 5.7; maxillary tooth row, 6.3.

Cryptotis guerrerensis, sp. nov.

Type-specimen.—No. 126895, U. S. National Museum, Biological Survey collection; ♀ adult (teeth moderately worn), skin and skull; collected May 17, 1903, by E. W. Nelson and E. A. Goldman. Original number 16429.

Type-locality.—Omiteme, altitude about 8000 feet, State of Guerrero, Mexico.

Diagnostic characters.—A *Cryptotis* of the *mexicana* group, essentially like *Cryptotis mexicana goldmani* in color, possibly averaging a shade darker; paler than *Cryptotis mexicana mexicana*; larger than *goldmani*, with distinctly larger feet, possibly larger than *Cryptotis m. mexicana*; skull larger and much heavier than that of *goldmani*, relatively and actually wider interorbitally, with wider and heavier rostrum; molariform teeth slightly wider than in *goldmani*. Upper molariform teeth more deeply emarginate posteriorly than in *Cryptotis m. mexicana*.

Color.—Upperparts between sepia and clove brown, or a shade darker; underparts hair brown or between hair brown and drab in general tone, washed with drab.

Measurements.—Type-specimen: Total length, 110; tail vertebrae, 32; hind foot, 14.5. *Skull* of type-specimen: Condylbasal length, 20.0; palatal length, 8.6; cranial breadth, 10.4; interorbital breadth, 5.3; maxillary breadth, 6.6; maxillary tooth row, 7.4.

Cryptotis griseoventris, sp. nov.

Type-specimen.—No. 75894, U. S. National Museum, Biological Survey collection; ♂ adult (teeth very slightly worn), skin and skull; collected October 4, 1895, by E. W. Nelson and E. A. Goldman. Original number 8545.

Type-locality.—San Cristobal, altitude 9500 feet, State of Chiapas, Mexico.

Diagnostic characters.—Somewhat darker and more grayish (less reddish) than *Cryptotis mexicana mexicana*, particularly ventrally; in fact, slightly more plumbeous ventrally than any other known member of the *mexicana* group. Skull larger than that of *Cryptotis m. mexicana*, superficially resembling that of *Cryptotis guerrensis* but with narrower cranium and rostrum.

Color.—Upperparts near clove brown but darker; underparts between clove brown and chaetura drab.

Measurements.—Type-specimen: Total length, 110; tail vertebrae, 30; hind foot, 14.5. *Skull* of type-specimen: Condylbasal length, 20.0; palatal length, 8.7; cranial breadth, 10.2; interorbital breadth, 5.2; maxillary breadth, 6.2; maxillary tooth row, 7.3.

Cryptotis goodwini,² sp. nov.

Type-specimen.—No. 77074, U. S. National Museum, Biological Survey collection; ♂ adult (teeth moderately worn), skin and skull; collected January 13, 1896, by E. W. Nelson and E. A. Goldman. Original number 9073.

Type-locality.—Calel, altitude 10200 feet, Guatemala.

Diagnostic characters.—A large *Cryptotis*, apparently of the *mexicana* group, and of the Mexican and Central American members of the genus exceeded in size only by *Cryptotis magna*. In color not essentially different from *Cryptotis mexicana mexicana*, but contrastedly larger than that form or than *Cryptotis griseoventris*. Cranium deep, broadly expanded; rostrum broad; molariform teeth broad and heavy, deeply pigmented.

Color.—Upperparts somewhat darker than clove brown; underparts almost olive brown in general effect, mixed with grayish.

Measurements.—Type-specimen: Total length, 117; tail vertebrae, 28; hind foot, 15.5. *Skull* of type-specimen: Condylbasal length, 21.3; palatal length, 9.1; cranial breadth, 11.1; interorbital breadth, 5.7; maxillary breadth, 7.1; maxillary tooth row, 8.0.

²Named for George G. Goodwin of the American Museum of Natural History, in recognition of his interest in Guatemalan mammals and who suspected the present form as new on the basis of a single imperfect specimen from Tecpam, Guatemala, in the collection of the American Museum.